

The difference in stability offered by materials in the claimed resiliency index range (about 0.05 to about 0.5) can generally be evaluated by extrapolation. In this respect a material having a resiliency index of about 0.1 will be better in terms of stability than a material having a resiliency index of about 0.2 that in turn will be better than a material having a resiliency index of 0.3, etc.

Thus, the applicant contends that the specification, as it now reads, is in full compliance with 35 USC 112 and 37 CFR 1.71(a)-(c). Withdrawal of the aforementioned objections is respectfully requested.

Claim Rejections - 35 USC § 112

Claims 1-18 were rejected by the Examiner under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make or use the invention.

The applicant respectfully disagrees with this conclusion primarily for the reasons expressed above. The specification, when fairly read, teaches three things. The first one is that better stability is obtained when the material of the sole for the article of footwear has a resiliency index in the range from about 0.5 to about 0.5. The second one is a detailed disclosure of the way the resiliency index is measured. The third one is a reference to a commercially available material that falls in the claimed resiliency index range. The applicant fails to see what else he must disclose in order to enable a person skilled in the art to make or use the invention. Clearly, the applicant cannot be required to disclose a material for every

possible resiliency index value in the continuum between the extremes from about 0.05 and about 0.5. This would not be reasonable and for all practical purposes is impossible to do.

Any person skilled in the art, by reading the specification has in hand all the necessary information to make the invention. In particular, he/she has knowledge of a specific and commercially available material that falls in the claimed range. Moreover, through simple (not undue) experimentation, he/she can make a material at a different resiliency index value than the one specifically disclosed, by, for example, varying parameters such as formulation and physical parameters during the manufacture of the material.

Thus, the applicant respectfully submits that claims 1-18 are in full compliance with 35 USC 112, first paragraph. Withdrawal of this rejection is respectfully solicited.

Claims 1-18 were also rejected under 35 USC 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which the applicant regards as the invention. The Examiner states that "in claims 1-3 and 9-11, the phrase "resiliency index" is vague and indefinite because it is not clear what materials applicant intends to encompass with such language."

The applicant respectfully disagrees. Two materials applicant intends to encompass are those having the resiliency indices recited in the claims. The resiliency index is defined mathematically as being the ratio of (R-M) to (P-M) where R is the peak recovered thickness observed within the one second time frame immediately following the removal of main load; M is the thickness under pre-load and main load; and P is the thickness under pre-load only. The applicant fails to see where the vagueness resides, in that the mathematical formula

defining the resiliency index and the meaning of the terms or expressions used in formulating the claims seem abundantly clear. The applicant is offering his full cooperation to resolve this matter but he needs to know specifically what the Examiner finds unclear.

Thus, the applicant respectfully submits that claims 1-18 are in full compliance with 35 USC 112, second paragraph. Withdrawal of this rejection is respectfully solicited.

Claim Rejections - 35 USC § 102

The Examiner has rejected claims 1-3, 7-11, and 15-18 under 35 USC 102(b) as being anticipated by Pendergast (US Patent 4,633,877). The Examiner states:

"Pendergast shows a sole made from PVC foam with a Shore A hardness of 5A-50A and suggests selecting a particular hardness of firmness based upon the stretch, contraction, and dwell desired and that the materials will exhibit the characteristic of impact absorption and compression (in contrast with resilience) (column 8 lines 59-69). The materials used and suggested by Pendergast inherently would have the resiliency indexes as claimed."

The applicant strongly disagrees. First of all, the cited prior art does not address the issue of improving balance and stability by using low-resiliency materials as shoe soles. Nowhere in the cited reference is there any disclosure or even any suggestion that Pendergast knew that a low-resiliency shoe sole improves balance and stability in humans. In fact, to the applicant's knowledge, there is no prior art that describes a shoe sole having low resiliency for improving balance and stability.

The Examiner has once again rejected the claims on the grounds that a prior art reference discloses a material that inherently has the claimed resiliency index. This inherency

rejection does not bring anything new over the previous inherency rejections raised by the Examiner simply because Pendergast is no more relevant than the prior art previously relied upon. The applicant submits that he has already addressed this issue of inherent properties in his written response dated May 1, 1998 and wishes to put this issue to rest once and for all. His Declaration under 37 CFR 1.132 clearly and unequivocally stated that he has diligently tested virtually every mainline shoe sole material and was unable to identify any prior art shoe sole materials having a resiliency index falling within the range of 0.05 and 0.5. The applicant submits that this is because the conventional wisdom in the footwear industry is to employ highly resilient materials, which goes against the grain of his invention. The applicant has attested to the fact that the use of a PVC base stock is but one of a multitude of factors that affect the resiliency index. Cure times, temperatures and pressures, aeration and additives are all factors that affect the resiliency index of polymer foam. Thus, the resiliency index of PVC foam can vary tremendously. To the applicant's knowledge, there is only one commercially available PVC foam that has a low enough resiliency to fall within the claimed range. All other PVC foams tested, including the common PVC foams used in footwear, have high resiliency indices and are outside the claimed resiliency index range. Thus, there is no inherent resiliency index for all PVC foam, and nothing in Pendergast indicates that he intends to buck conventional wisdom and use a low resiliency material.

The Examiner is also invited to consider the fundamental contradictions in the rejections that are being raised. On one hand the Examiner finds that the specification fails to adequately teach how to make and/use the invention (failure to provide an enabling

disclosure) and on the other hand the Examiner finds that an obscure piece of prior art (Pendergast) that fails to disclose anything of even remote interest to the present invention provides sufficient guidance to a person skilled in the art to make something that falls in the claimed resiliency index range. Namely, the Examiner states:

“...it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.”

These two positions cannot be reconciled with one another.

Claim Rejections - 35 USC § 103

The Examiner has rejected claims 4-6 and 12-14 under 35 USC 103(a) as being unpatentable over Pendergast. Again, the applicant disagrees. The foregoing argument is predicated on the rejection of claims 1-3 and 7-11 for lacking novelty. For the reasons stated above, the applicant respectfully submits that claims 1-3 and 7-11 (as well as claims 15-18) are novel and nonobvious. Thus, the applicant contends that claims 4-6 and 12-14 are also patentable because they depend on patentable claims. For these reasons, the applicant respectfully requests reconsideration and withdrawal of the rejection of claims 4-6 and 12-14.

For these reasons, the applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-18.

Accordingly, Applicant submits that all claims are in condition for allowance, and requests a prompt notice to that effect.